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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,464	11/15/2001	Adam Murano	2384.1001-011	6247

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EXAMINER	
MAYES, MELVIN C	
ART UNIT	PAPER NUMBER
1734	3

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/002,464	Applicant(s) MURANO, ADAM	
	Examiner Melvin Curtis Mayes	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7 and 9-26* is/are rejected.

7)☒ Claim(s) *2,3 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Priority

(1)

This application repeats a substantial portion of prior Application No. 09/233,545, filed 12/30/98, and adds and claims additional disclosure not presented in the prior application. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

This application claims steps of thermoforming or vacuum-forming a thermoplastic polymer at a surface of the metallized composite (Claims 4 and 5), bonding by partially melting the layers AND depositing an adhesive (Claims 17 and 19), and depositing metal and laminating a third thermoplastic layer (Claim 26), steps not presented in the prior application. If these claims are to remain, the status of this case should be changed to a CIP of the prior application unless Applicant can show where in the original specification and claims there is support for these Claims.

Specification

(2)

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: antecedent basis for thermoforming or vacuum-forming a thermoplastic polymer at a surface of the metallized composite (Claims 4 and 5), antecedent basis for bonding

by partially melting AND depositing an adhesive (Claims 17 and 19) and antecedent basis for depositing metal onto the composite and laminating a third thermoplastic layer (Claim 26). The specification only provides antecedent basis for thermoforming or vacuum-forming the composite sheet itself, not a polymer at the surface of the composite (pg. 5).

Claim Objections

(3)

Claim 1 is objected to because of the following informalities: line 2 should read "to form a discontinuous" and not "to **from** a discontinuous." Appropriate correction is required.

Claim Rejections - 35 USC § 112

(4)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

(5)

Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for thermoforming or vacuum forming the metallized composite (pg. 5, lines 17-20), does not reasonably provide enablement for thermoforming or vacuum-forming a thermoplastic polymer at a surface of the metallized composite. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The specification describes injection molding or blow molding a thermoplastic polymer at a surface of the metallized composite, not thermoforming or vacuum-forming a thermoplastic polymer at a surface.

(6)

Claims 17-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 17 and 19 claim bonding by depositing an adhesive but depends from Claim 15 which claims bonding by at least partially melting the layers to become a continuous thermoplastic sheet. The specification does not describe how layers be bonded both by an adhesive and by partially melting to become a continuous sheet such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim Rejections - 35 USC § 103

(7)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

(8)

Claims 1, 6, 9, 13, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mott 4,756,414.

Mott discloses a method of making sheet material comprising: providing a first layer of polyolefin such as polyethylene or of heat sealable plastic; providing a second layer of plastic such as polyester; forming an electrically conductive layer 44 on the surface of the second layer by depositing a thin layer of metal such as through use of conventional vapor deposition or sputtering techniques; joining the second layer with the first layer using an adhesive to form a sheet material; and winding the sheet material on a core. The metal layer may be discontinuous. The sheet material can be formed into a package by folding the sheet onto itself and heat sealing opposing edges, and a closure device may be attached to the sheet material (col. 2, lines 38-46, col. 4, line 66 – col. 7, line 57).

By forming a discontinuous metal layer on the plastic layer and joining to another plastic layer to form a sheet material, a metal is obviously deposited on a thermoplastic layer to form a discontinuous layer and the thermoplastic layer is laminated to another second thermoplastic layer to form a metallized composite, as claimed. By attaching a closure device to the formed sheet material, as disclosed by Mott, the metallized composite (sheet material) is obviously adhered to a substrate, as claimed in Claim 6.

(9)

Claims 7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mott as applied to claim 9 above, and further in view of Rye et al. 5,380,474 and Sulzbach et al. 3,996,461.

Mott discloses depositing the discontinuous thin layer of metal by conventional vapor deposition or sputtering techniques.

Rye et al. teach that method that can be used to achieve patterned deposition of thin metal film include a variety of chemical vapor deposition techniques as well as thermal evaporation, ion plating, sputtering, plasma enhanced vapor deposition, heavy ion irradiation and electroless deposition (col. 5, lines 5-14).

Sulzbach et al. teach that standard thin film deposition techniques include thermal evaporation, electron beam bombardment, sputtering, chemical vapor deposition, and induction heating (col. 3, lines 23-26).

It would have been obvious to one of ordinary skill in the art to have modified the method of Mott by depositing the thin layer of metal by electron beam evaporation, ion plating, induction heating or thermal evaporation, as taught by Rye et al. and Sulzbach et al. as methods of depositing thin film. The use of electron beam evaporation, ion plating, induction heating or thermal evaporation would have been obvious to one of ordinary skill in the art as alternatives to vapor deposition or sputtering for depositing a thin film of metal, as suggested by Rye et al. and Sulzbach et al., and the use of any of these methods to deposit the thin layer of metal would have been obvious to one of ordinary skill in the art.

(10)

Claims 1, 13-16 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiste et al. 5,165,985.

Wiste et al. disclose a method of making a flexible, transparent film for electrostatic shielding comprising: providing a sheet of thermoplastic material; depositing slivers of silver tow to the sheet material in a regular pattern or random distribution; bonding extruded thermoplastic cover sheet onto the sheet of thermoplastic material to form a film by pressing between cylinders; and drawing the film onto a take-up roll. The sheets are bonded at a heated cylinder so that the two sheets blend together to form a single, homogenous layer. The formed film can be formed into a package by folding the film and heat sealing (col. 4, line 51 – col. 7, line 65).

By depositing slivers of silver tow to the thermoplastic sheet material, metal is obviously deposited to form a discontinuous layer of metal on the thermoplastic layer, as claimed.

(11)

Claims 1, 6, 13, 21 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayer 5,277,734.

Bayer discloses a method of making a multi-layer flexible electric conductive circuit comprising: providing circuit traces made of thin conductive foil on a transfer sheet; transferring the circuit traces to a base material of flexible plastic sheet; removing the transfer sheet; applying an insulating sheet over the circuit traces; and repeating the steps of transferring conductive traces and applying insulating sheet to form a multi-layer flexible electric conductive circuit. The base material has an adhesive surface for adhering to underlying base material and the bottom

one of the base material sheets can be releasable retained on a release sheet which is removed prior to securing the strip (Fig. 3, col. 2-4).

By transferring circuit traces on base material of plastic sheet and applying an insulating sheet over the transferred traces to make a flexible circuit, a discontinuous layer of metal is obviously deposited on a thermoplastic layer to form a metallized composite, as claimed.

Allowable Subject Matter

(12)

Claims 2, 3 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

(13)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(14)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 703-308-1977. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Melvin Curtis Mayes
Primary Examiner
Art Unit 1734

MCM
October 18, 2002